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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,978	08/26/2003	Jason B. Chesser	42.P11893D2	2830
7590 10/30/2007 R. Alan Burnett BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP Seventh Floor 12400 Wilshire Boulevard Los Angeles, CA 90025-1026			EXAMINER PATEL, NIHIR B	
			ART UNIT 3772	PAPER NUMBER
			MAIL DATE 10/30/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/647,978

Applicant(s)

CHESSER ET AL.

Examiner

Nihir Patel

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3772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10.12.2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 31-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 31-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 07.11.2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. First, the examiner agrees with the applicant's arguments and acknowledges applicant's election without traverse of **species I (figures 2A-2C; claims 31-35)** in the reply filed on October 12<sup>th</sup>, 2007 is acknowledged.
2. The examiner acknowledges the cancellation of claims 1-30 in the reply filed on October 12<sup>th</sup>, 2007.

### *Specification*

3. The disclosure is objected to because of the following informalities: The applicant needs to update the specification (CROSS REFERENCE TO RELATED APPLICATIONS) to include that the current application is a division of application 09/957,792 filed on September 20<sup>th</sup>, 2001 which is now patent US 6,981,543.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims **31 and 32** are rejected under 35 U.S.C. 102(b) as being anticipated by Van Oost (US 5,944,092).
6. **As to claim 31**, Van Oost teaches an apparatus that comprises a base in which a cavity is defined within a peripheral portion thereof and configured to be thermally coupled to a

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semiconductor heat source (see column 4 lines 35-40); a top cover secured to the peripheral portion of the base so as to define a sealed volume in which a working fluid is vaporized (see column 4 lines 35-45); a liquid inlet port (see column 4 lines 1-10) to receive the working fluid in a liquid state, operatively coupled to the sealed volume; a vapor liquid inlet port (see column 4 lines 10-20) from which the working fluid exits the evaporator in a vapor state, operatively coupled to the sealed volume; and a wicking structure 5, disposed within a portion of the cavity, having a top surface on which a meniscus of the working fluid is formed and a bottom surface into which the working fluid is drawn through a capillary mechanism and a pressure differential between a pressure of the working fluid in the meniscus and a pressure of vaporized working fluid in the sealed volume (see column 4 lines 35-55).

7. As to claim 32, Van Oost teaches an apparatus that further comprises a plurality of structural elements extending between the base and the top cover so as to prevent the sealed volume from collapsing when the evaporator is operated such that evaporation of the working fluid occurs under sub-atmospheric condition (see column 6 lines 20-60).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims **33-35** are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Oost (US 5,944,092) in view of Anderson et al. (US 5,761,037).

11. **As to claim 33 and 34**, Van Oost substantially discloses the claimed invention; see rejection of claim 31 above, but does not disclose a wicking structure comprising a volume of a sintered material (copper). Anderson teaches an apparatus that does provide a wicking structure that comprises a volume of a sintered material (cooper) (**see column 3 lines 55-65**). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Van Oost's invention by providing a wicking structure that comprises a volume of a sintered material (cooper) as taught by Anderson in order to improve the vapor passage, which will also inherently improve the heat transfer process.

12. **As to claim 35**, Van Oost substantially discloses the claimed invention; see rejection of claim 31 above, but does not disclose a base and top cover that comprise stamped metal components. Anderson teaches an apparatus that does provide a base and top cover that comprise stamped metal components (**see column 4 lines 60-67**). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Van Oost's invention by providing a base and top cover that comprise stamped metal components as taught by Anderson in order to improve the heat transfer process.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nihir Patel whose telephone number is (571) 272-4803. The examiner can normally be reached on 7:30 to 4:30 every other Fridays off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco can be reached on (571) 272-4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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10/28/07